

# PLANNING FOR A RESILIENT OPEN SPACE. A COMPARATIVE STUDY ON THE DRIVING FORCES AND SPATIAL EFFECTS OF URBANIZATION IN FLANDERS

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## Keywords

open space, urbanization, spatial transformations, regional differences, driving forces

## Abstract

Open space is scarce and under pressure in the highly urbanized region of Flanders, the northern part of Belgium. Due to urbanization and fragmentation, the former countryside has disintegrated into a complex spatial structure of open space fragments with different densities and functions, such as housing, work and recreation. The built-up density of the open space – defined as all space outside of village and city centers – is increasing, while the predominance of agriculture as the traditional manager of open space is decreasing.

The question arises to what extent open space is resilient to urbanization and at what point the morphological transformations and new functions exceed the carrying capacity of open space. This is especially relevant since there is little coherent and effective spatial policy for some of these functions. Therefore, this research aims to gain insight into the current state and structure of open space in Flanders through a spatially coherent analysis based on a system approach.

The article focuses on four uses of open space, which are largely responsible for its increasing building density and changing morphology. These are (a) the residential use, with a growing household density, (b) the diverse economic use, altering the formerly agricultural rural economy, (c) the private use for gardens and hobby farming as an extension of the home environment, and (d) the use for public recreational purposes. The first two are ‘hard’ functions, taking place in buildings, whereas the other two are ‘soft’ activities, oriented towards the unbuilt space. While hard functions seem to be a threat to open space, soft functions are potential managers of a new kind of open space (keeping the open space open). These new functions are mapped and analyzed through a comparative study in nine case municipalities with different spatial characteristics. In the paper, their region-specific or spatially heterogeneous patterns are examined. Since understanding the drivers

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that push open space into a new regime is key to resilience management, these are also analyzed through literature review.

The study shows that within Flanders, some open space areas are more resilient to urbanization than others. In more peripheral parts, production agriculture is strong enough and urbanization is only possible when space is available. In suburban parts, the open space serves urban needs and is highly fragmented by roads and buildings. These areas have passed their resilience thresholds and moved on to a different regime. The drivers for this process are very diverse, both in scale and type. Generally, we can conclude that the importance of these new users is substantial for the resilience of open space.

The insights presented in this article can contribute to a policy that is better adapted to the regional differences and current dynamics in open space. Since open space is a product of activities and lifestyles, reflecting a society that is subject to change, these transformations cannot be reversed, but can be steered towards a desired regime. The central question for the future is what this desired spatial structure for open space exactly involves.